

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	350	simonson.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 11:42
L2	10	simonson-Peter.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 11:42
L3	9	simonson-Peter-\$.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 12:00
L4	0	("FR2872020").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:00
L5	3	("2872020").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:09
L6	0	("WO200417817").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:09
L7	1	("200417817").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:11
L8	2	("20040143264").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:13
L9	3	("6554831").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:14

## EAST Search History

L10	2	("20030144665").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:17
L11	2	("11347047").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:18
L12	2	("5486174").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:19
L13	0	("92944206").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:20
L14	2	("5382248").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:21
L15	2	("5810817").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:22
L16	2	("5437671").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:23
L17	5	("1607793").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:24

## EAST Search History

L18	5	("2589716").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:26
L19	2	("5713900").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:28
L20	0	("200200068009").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:28
L21	2	("20020068009").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:29
L22	0	("13474498").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/02/15 12:29
L23	0	"0013474498"	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 12:29
L25	1	("4320756").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 12:52
L42	35	2 3 5 7 8 9 10 11 12 14 15 16 17 18 19 21 25	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L43	2182	(606/61).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 13:05

## EAST Search History

L54	214	(US-20010020169-\$ or US-20020042614-\$ or US-20020052603-\$ or US-20020082599-\$ or US-20020087159-\$ or US-20020116001-\$ or US-20020133155-\$ or US-20020143332-\$ or US-20020193794-\$ or US-20030060823-\$ or US-20030073995-\$ or US-20030073996-\$ or US-20030083657-\$ or US-20030105460-\$ or US-20030139745-\$ or US-20030144665-\$ or US-20030153911-\$ or US-20030153912-\$ or US-20030153915-\$ or US-20030171401-\$ or US-20030171750-\$ or US-20030176861-\$ or US-20030176862-\$ or US-20030176863-\$ or US-20030176864-\$ or US-20030181980-\$).did. or (US-20030187438-\$ or US-20030191473-\$ or US-20030220643-\$ or US-20040002708-\$ or US-20040010253-\$ or US-20040039384-\$ or US-20040092930-\$ or US-20040092934-\$ or US-20040116929-\$ or US-20040138662-\$ or US-20040172020-\$ or US-20040172025-\$ or US-20040215191-\$ or US-20040243128-\$ or US-20040267260-\$ or US-20050010216-\$ or US-20050021031-\$ or US-20050027292-\$ or US-20050033295-\$ or US-20050038432-\$ or US-20050049588-\$ or US-20050065515-\$ or US-20050070899-\$ or US-20050070901-\$ or US-20050080420-\$ or US-20050096653-\$ or US-20050101953-\$).did. or (US-20050101954-\$ or US-20050113831-\$ or US-20050131404-\$ or	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
2/15/2006 1:42:10 PM		Page 4				
C:\Documents and Settings\ramaready\My Documents\EAST\Workspaces\Cases\10780426 (method for facet joint)(copy of10720659 (artil						

## EAST Search History

L55	112	L54 and method	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L56	102	L54 not L55	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L57	1983	L43 not L54	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L58	133	L57 and (first adj rod)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L59	97	L58 and (second adj rod)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L60	1	("20050101953").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 13:05
L61	311	L54 L55 L56 L59 L60	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L62	36	L58 not L61	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L63	347	L61 L62	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L64	9396	vertebrae	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L65	3622	L64 and rod	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L66	3352	L65 not L63	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L67	1733	L66 and (slide or sliding)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L68	62	L67 and (first adj (vertebrae or rod))	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05
L69	409	L63 L68	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:05

## EAST Search History

L70	434	I42 L69	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:30
L71	1	("5437671").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 13:20
L72	5	((("5885285") or ("5643263") or ("20050101956") or ("20050101954") or ("20050101953"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 13:22
L73	49	(US-5332398-\$ or US-6228088-\$ or US-5257809-\$ or US-5851219-\$ or US-5904704-\$ or US-6270501-\$ or US-6332887-\$ or US-4511334-\$ or US-4926847-\$ or US-5747953-\$ or US-5839897-\$ or US-5885298-\$ or US-5888200-\$ or US-5941891-\$ or US-6013991-\$ or US-6045564-\$ or US-6719803-\$ or US-4498868-\$ or US-6432058-\$ or US-6757582-\$ or US-5230621-\$ or US-5328365-\$ or US-5685879-\$ or US-6007333-\$ or US-6036696-\$ or US-6214013-\$). did. or (US-4969889-\$ or US-4803976-\$ or US-4848327-\$ or US-5013317-\$ or US-5031203-\$ or US-5426687-\$ or US-5478343-\$ or US-5762498-\$ or US-5681320-\$ or US-5916220-\$ or US-5026373-\$ or US-5609595-\$ or US-5709687-\$ or US-5890897-\$ or US-6015411-\$ or US-4341206-\$ or US-4373518-\$ or US-4978357-\$ or US-5387059-\$ or US-5443468-\$ or US-5496326-\$ or US-5556399-\$ or US-5562669-\$). did.	USPAT	OR	ON	2006/02/15 13:30
L74	303	70 73	USPAT	OR	ON	2006/02/15 13:30
L75	483	I70 I73 I74	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:30
L76	2182	(606/61).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 13:35
L77	242	74 and (spin\$2 or verteb\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:37
L78	227	77 and rod	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:37

## EAST Search History

L79	0	78 not 75	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:37
S1	40	(("3219575") or ("3242922") or ("3565066") or ("4269178") or ("4272401") or ("4361141") or ("4369769") or ("4369770") or ("4382438") or ("4386603") or ("4404967") or ("4409968") or ("4411259") or ("4419026") or ("4422451") or ("4448191") or ("4567884") or ("4611582") or ("4662365") or ("4773402") or ("4836196") or ("4854304") or ("4887595") or ("4887596") or ("4946458") or ("4950269") or ("4987892") or ("5002542") or ("5005562") or ("5024213") or ("5102412") or ("5127912") or ("5129900") or ("5133717") or ("5147360") or ("5181917") or ("5209752") or ("5246442")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/09 16:02
S2	39	(("5257993") or ("5261909") or ("5282801") or ("5282901") or ("5312404") or ("5415661") or ("5437669") or ("5437670") or ("5474551") or ("5498262") or ("5549608") or ("5554157") or ("5562662") or ("5569247") or ("5571191") or ("5591166") or ("5611800") or ("5672175") or ("5693053") or ("5716357") or ("4743260") or ("5800435") or ("5876459") or ("5891145") or ("re36758") or ("6183473") or ("6210413") or ("6248105") or ("6328739") or ("6413257") or ("6443956") or ("20030004572") or ("20030028250") or ("6554831") or ("6565565") or ("6579319") or ("6623485") or ("6648887") or ("4815453")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/09 15:57
S3	79	S1 S2	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 16:23
S4	1211	facet adj joint	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 16:24
S5	1198	S4 not S3	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 16:25

## EAST Search History

S7	951	("0752828"   "0958052"   "1025008"   "1077046"   "1201864"   "1373230"   "1411013"   "1960892"   "2250417"   "2251209"   "2346346"   "2391537"   "2406987"   "2497626"   "2992669"   "3242922"   "3286963"   "3367326"   "3426364"   "3554193"   "3565066"   "3568770"   "3596656"   "3693616"   "3741205"   "3862631"   "3865105"   "3961854"   "3977397"   "3988783"   "3997138"   "4003376"   "4041939"   "4047523"   "4047524"   "4078559"   "4085744"   "4116235"   "4127119"   "4135505"   "4187841"   "4230415"   "4241463"   "4244360"   "4257409"   "4269178"   "4271832"   "4271836"   "4274401"   "4289123"   "4289124"   "4312336"   "4347845"   "4349017"   "4361141"   "4361144"   "4369769"   "4369770"   "4382438"   "4386603"   "4393868"   "4404967"   "4409968"   "4411259"   "4414966"   "4419026"   "4422451"   "4433676"   "4433677"   "4435101"   "4445513"   "4448191"   "4454876"   "4456004"   "4476865"   "4483334"   "4557447"   "4567884"   "4569338"   "4570625"   "4573456"   "4601450"   "4611580"   "4611581"   "4611582"   "4641636"   "4648388"   "4653481"   "4655199"   "4662365"   "4686970"   "4719905"   "4743260"   "4763644"   "4771767"   "4773402"   "4783029"   "4790297"   "4805602"   "4815453"   "4827918"   "4836196"   "4854304"   "4854496"   "4887595"   "4887596"   "4913134"   "4920959"   "4946458"   "4950269"   "4955885"   "4987892"   "5000165"   "5002542"   "5005562"   "5007909"   "5010879"   "5024213"   "5030220"   "5047029"   "5053034"   "5057111"   "5074864"   "5084048"   "5084049").PN. OR ("5092893"   "5096327"   "5102412"   "5108395"   "5112332"   "5116334"   "5122131"   "5127912"   "5129388"   "5129899"   "5129900"   "5133717"   "5147359"   "5147360"   "5151103"   "5154718"   "5171279"   "5176678"   "5176679"   "5176680"   "5181017"   "5190543"   "5196014"	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 16:27
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## EAST Search History

S8	883	S7 not S3	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 17:20
S9	962	S8 S3 S7	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 16:58
S10	1113	S4 not S9	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 17:22
S11	2075	S9 S10	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/09 17:21
S12	2162	(606/61).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/09 17:21
S13	1207	S12 not S11	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:46
S14	73	lin-chih-i.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:47
S15	40	(("3219575") or ("3242922") or ("3565066") or ("4269178") or ("4272401") or ("4361141") or ("4369769") or ("4369770") or ("4382438") or ("4386603") or ("4404967") or ("4409968") or ("4411259") or ("4419026") or ("4422451") or ("4448191") or ("4567884") or ("4611582") or ("4662365") or ("4773402") or ("4836196") or ("4854304") or ("4887595") or ("4887596") or ("4946458") or ("4950269") or ("4987892") or ("5002542") or ("5005562") or ("5024213") or ("5102412") or ("5127912") or ("5129900") or ("5133717") or ("5147360") or ("5181917") or ("5209752") or ("5246442")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/10 11:48

## EAST Search History

S16	39	((("5257993") or ("5261909") or ("5282801") or ("5282901") or ("5312404") or ("5415661") or ("5437669") or ("5437670") or ("5474551") or ("5498262") or ("5549608") or ("5554157") or ("5562662") or ("5569247") or ("5571191") or ("5591166") or ("5611800") or ("5672175") or ("5693053") or ("5716357") or ("4743260") or ("5800435") or ("5876459") or ("5891145") or ("re36758") or ("6183473") or ("6210413") or ("6248105") or ("6328739") or ("6413257") or ("6443956") or ("20030004572") or ("20030028250") or ("6554831") or ("6565565") or ("6579319") or ("6623485") or ("6648887") or ("4815453"))).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/10 11:48
S17	79	S15 S16	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
S18	1211	facet adj joint	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48

## EAST Search History

S19	951	("0752828"   "0958052"   "1025008"   "1077046"   "1201864"   "1373230"   "1411013"   "1960892"   "2250417"   "2251209"   "2346346"   "2391537"   "2406987"   "2497626"   "2992669"   "3242922"   "3286963"   "3367326"   "3426364"   "3554193"   "3565066"   "3568770"   "3596656"   "3693616"   "3741205"   "3862631"   "3865105"   "3961854"   "3977397"   "3988783"   "3997138"   "4003376"   "4041939"   "4047523"   "4047524"   "4078559"   "4085744"   "4116235"   "4127119"   "4135505"   "4187841"   "4230415"   "4241463"   "4244360"   "4257409"   "4269178"   "4271832"   "4271836"   "4274401"   "4289123"   "4289124"   "4312336"   "4347845"   "4349017"   "4361141"   "4361144"   "4369769"   "4369770"   "4382438"   "4386603"   "4393868"   "4404967"   "4409968"   "4411259"   "4414966"   "4419026"   "4422451"   "4433676"   "4433677"   "4435101"   "4445513"   "4448191"   "4454876"   "4456004"   "4476865"   "4483334"   "4557447"   "4567884"   "4569338"   "4570625"   "4573456"   "4601450"   "4611580"   "4611581"   "4611582"   "4641636"   "4648388"   "4653481"   "4655199"   "4662365"   "4686970"   "4719905"   "4743260"   "4763644"   "4771767"   "4773402"   "4783029"   "4790297"   "4805602"   "4815453"   "4827918"   "4836196"   "4854304"   "4854496"   "4887595"   "4887596"   "4913134"   "4920959"   "4946458"   "4950269"   "4955885"   "4987892"   "5000165"   "5002542"   "5005562"   "5007909"   "5010879"   "5024213"   "5030220"   "5047029"   "5053034"   "5057111"   "5074864"   "5084048"   "5084049").PN. OR ("5092893"   "5096327"   "5102412"   "5108395"   "5112332"   "5116334"   "5122131"   "5127912"   "5129388"   "5129899"   "5129900"   "5133717"   "5147359"   "5147360"   "5151103"   "5154718"   "5171279"   "5176678"   "5176679"   "5176680"   "5181017"   "5190543"   "5196014"	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
2/15/2006 1:42:10 PM		Page 11				
C:\Documents and Settings\ramareld\My Documents\EAST\Workspaces\Cases\10780426 (method for facet joint)(copy of 10720659 (artil						

## EAST Search History

S20	883	S19 not S17	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
S21	962	S20 S17 S19	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
S22	1113	S18 not S21	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
S23	2075	S21 S22	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
S24	2163	(606/61).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/01/10 11:48
S25	1208	S24 not S23	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:48
S26	3283	S24 S25 S23	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:49
S27	28	S14 not S26	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 11:49

## EAST Search History

S28	214	(US-20020082599-\$ or US-20020133155-\$ or US-20030060823-\$ or US-20030105460-\$ or US-20030171750-\$ or US-20030171401-\$ or US-20030220643-\$ or US-20040002708-\$ or US-20040010253-\$ or US-20040138662-\$ or US-20040215191-\$ or US-20050065515-\$ or US-20050101954-\$ or US-20050101953-\$ or US-20050154393-\$ or US-20050177164-\$ or US-20050187548-\$ or US-20010020169-\$ or US-20020042614-\$ or US-20020052603-\$ or US-20020087159-\$ or US-20020116001-\$ or US-20020143332-\$ or US-20020193794-\$ or US-20030073996-\$ or US-20030073995-\$).did. or (US-20030083657-\$ or US-20030139745-\$ or US-20030144665-\$ or US-20030153915-\$ or US-20030153912-\$ or US-20030153911-\$ or US-20030176864-\$ or US-20030176863-\$ or US-20030176862-\$ or US-20030176861-\$ or US-20030181980-\$ or US-20030187438-\$ or US-20030191473-\$ or US-20040039384-\$ or US-20040092934-\$ or US-20040092930-\$ or US-20040116929-\$ or US-20040172025-\$ or US-20040172020-\$ or US-20040243128-\$ or US-20040267260-\$ or US-20050010216-\$ or US-20050021031-\$ or US-20050027292-\$ or US-20050033295-\$ or US-20050038432-\$ or US-20050049588-\$).did. or (US-20050070901-\$ or US-20050070899-\$ or US-20050080420-\$ or US-20050096653-\$ or US-20050113831-\$ or US-20050131404-\$ or	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 17:34
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## EAST Search History

S29	24	S28 and elastic	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 17:35
S30	4	S28 and bias	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 17:36
S31	157	S28 and cross	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 17:36
S32	32	S31 and link	US-PGPUB; USPAT; USOCR	OR	ON	2006/01/10 17:36
S33	2180	(606/61).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/06 14:14

## EAST Search History

S34	214	(US-20010020169-\$ or US-20020042614-\$ or US-20020052603-\$ or US-20020082599-\$ or US-20020087159-\$ or US-20020116001-\$ or US-20020133155-\$ or US-20020143332-\$ or US-20020193794-\$ or US-20030060823-\$ or US-20030073995-\$ or US-20030073996-\$ or US-20030083657-\$ or US-20030105460-\$ or US-20030139745-\$ or US-20030144665-\$ or US-20030153911-\$ or US-20030153912-\$ or US-20030153915-\$ or US-20030171401-\$ or US-20030171750-\$ or US-20030176861-\$ or US-20030176862-\$ or US-20030176863-\$ or US-20030176864-\$ or US-20030181980-\$).did. or (US-20030187438-\$ or US-20030191473-\$ or US-20030220643-\$ or US-20040002708-\$ or US-20040010253-\$ or US-20040039384-\$ or US-20040092930-\$ or US-20040092934-\$ or US-20040116929-\$ or US-20040138662-\$ or US-20040172020-\$ or US-20040172025-\$ or US-20040215191-\$ or US-20040243128-\$ or US-20040267260-\$ or US-20050010216-\$ or US-20050021031-\$ or US-20050027292-\$ or US-20050033295-\$ or US-20050038432-\$ or US-20050049588-\$ or US-20050065515-\$ or US-20050070899-\$ or US-20050070901-\$ or US-20050080420-\$ or US-20050096653-\$ or US-20050101953-\$).did. or (US-20050101954-\$ or US-20050113831-\$ or US-20050131404-\$ or US-20050131407-\$ or US-20050154393-\$ or US-20050171539-\$ or	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 14:15
2/15/2006 1:42:10 PM		Page 15				
C:\Documents and Settings\ramareid\My Documents\EAST\Workspaces\Cases\10780426 (method for facet joint)(copy of 10720659 (artil						

## EAST Search History

S35	112	S34 and method	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 14:46
S36	102	S34 not S35	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 14:53
S37	1981	S33 not S34	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 14:53
S38	133	S37 and (first adj rod)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 14:54
S39	97	S38 and (second adj rod)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:01
S40	1	("20050101953").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/06 15:03
S41	311	S34 S35 S36 S39 S40	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:03
S42	36	S38 not S41	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:05
S43	347	S41 S42	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:06
S44	9359	vertebrae	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:24
S45	3610	S44 and rod	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:24
S46	3340	S45 not S43	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:24
S47	2036	S46 and slid\$4	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:26
S48	1728	S46 and (slide or sliding)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:27
S49	61	S48 and (first adj (vertebrae or rod))	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:33



## EAST Search History

S50	408	S43 S49	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/06 15:33
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## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L76	2182	(606/61).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/02/15 13:35
L77	242	74 and (spin\$2 or verteb\$3)	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:37
L78	227	77 and rod	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:37
L79	0	78 not 75	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:37
L80	78	("20030004572" "20030028250" "3219575" "3242922" "3565066" "4269178" "4272401" "4361141" "4369769" "4369770" "4382438" "4386603" "4404967" "4409968" "4411259" "4419026" "4422451" "4448191" "4567884" "4611582" "4662365" "4743260" "4773402" "4815453" "4836196" "4854304" "4887595" "4887596" "4946458" "4950269" "4987892" "5002542" "5005562" "5024213" "5102412" "5127912" "5129900" "5133717" "5147360" "5181917" "5209752" "5246442" "5257993" "5261909" "5282801" "5282901" "5312404" "5415661" "5437669" "5437670" "5474551" "5498262" "5549608" "5554157" "5562662" "5569247" "5571191" "5591166" "5611800" "5672175" "5693053" "5716357" "5800435" "5876459" "5891145" "6183473" "6210413" "6248105" "6328739" "6413257" "6443956" "6554831" "6565565" "6579319" "6623485" "6648887").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 13:56
L81	31	80 not 75	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:01
L82	514	75 81	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:01

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L83	87104	spin\$2 or verteb\$3	US-PGPUB	OR	ON	2006/02/15 14:09
L84	86941	83 not 82	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:09
L85	11074	84 and rod	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:10
L86	1912	85 and stabilization	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:10
L87	85	86 and slideabl\$2	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:14
L88	599	87 82	US-PGPUB; USPAT; USOCR	OR	ON	2006/02/15 14:15

## NON-PATENT LITERATURE

File 155:MEDLINE(R) 1951-2006/Feb 13

(c) format only 2006 Dialog

Set	Items	Description
S1	192	(2 OR TWO OR PAIR OR TWIN OR DUAL OR DOUBLE OR TWIN) (1W) RODS
S2	72300	VERTEBRA? ?
S3	22721	SLIDE? ? OR SLIDING OR SLIDABLE OR SLIDEABLE
S4	323643	CONNECT? OR COUPL?
S5	0	S1 AND S2 AND S3 AND S4
S6	0	S1 AND S2 AND S3
S7	11687	RODS
S8	5	S2 AND S3 AND S4
S9	3	S2 AND S3 AND S7
S10	8	S8:S9
S11	98	S2 AND S3
S12	65	S2(S)S3
S13	60	S12 NOT S10
S14	4	S13/2004:2006
S15	56	S13 NOT S14
S16	220401	STABILI?
S17	3	S15 AND S16

10/6/1

18774531 PMID: 16201331

[Spinal cord regeneration in rats after thoracic segmentectomy:  
restoration of the anatomical integrity of the spinal cord]  
2005

10/7/3

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

12738639 PMID: 10664313

**Cervical osteotomy for ankylosing spondylitis: an innovative variation on an existing technique.**

Mehdian S M; Freeman B J; Licina P

The Centre for Spinal Studies and Surgery, University Hospital, Queen's Medical Centre, Nottingham, NG7 2UH, UK. smehdian@prima.net

European spine journal - official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society (GERMANY) 1999, 8 (6) p505-9,

ISSN 0940-6719 Journal Code: 9301980

Publishing Model Print

Document type: Case Reports; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Ankylosing spondylitis can produce severe fixed flexion deformity in the cervical spine. This deformity may be so disabling that it interferes with forward vision, chewing, swallowing and skin care under the chin. The only treatment available is an extension osteotomy of the cervical spine. Existing techniques of cervical osteotomy may be associated with risk of neurological injury. We describe a variation on an existing technique, which provides a controlled method of reduction at the osteotomy site, eliminating sagittal translation. The method employs a modular posterior cervical system consisting of lateral mass and thoracic pedicle screws

linked to titanium **rods** . Our technique substitutes the titanium rod with a temporary malleable rod on one side, allowing controlled reduction of the osteotomy as this rod bends and **slides** through the thoracic clamps. Once reduction is complete definitive contoured **rods** are inserted to maintain the correction while fusion takes place. This method appears less hazardous by eliminating sagittal translation, and may reduce the risk of neurological injury during surgery. It achieves rigid internal fixation, obviating the need for a halo vest in the postoperative period.

Record Date Created: 20000321

Record Date Completed: 20000321

17/7/2

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2006 Dialog. All rts. reserv.

13953022 PMID: 11707709

**A finite element investigation of upper cervical instrumentation.**

Puttlitz C M; Goel V K; Traynelis V C; Clark C R

Department of Orthopaedic Surgery, University of California, San Francisco 94143-0514, USA. puttlit@itsa.ucsf.edu

Spine (United States) Nov 15 2001, 26 (22) p2449-55, ISSN 0362-2436

Journal Code: 7610646

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

**STUDY DESIGN:** The finite element technique was used to predict changes in biomechanics that accompany the application of a novel instrumentation system designed for use in the upper cervical spine. **OBJECTIVE:** To determine alterations in joint loading, kinematics, and instrumentation stresses in the **craniovertebral** junction after application of a novel instrumentation system. Specifically, this design was used to assess the changes in these parameters brought about by two different cervical anchor types: C2 pedicle versus C2-C1 transarticular screws, and unilateral versus bilateral instrumentation. **SUMMARY OF BACKGROUND DATA:** Arthrodesis procedures can be difficult to obtain in the highly mobile **craniovertebral** junction. Solid fusion is most likely achieved when motion is eliminated. Biomechanical studies have shown that C1-C2 transarticular screws provide good **stability** in **craniovertebral** constructs; however, implantation of these screws is accompanied by risk of **vertebral** artery injury. A novel instrumentation system that can be used with transarticular screws or with C2 pedicle screws has been developed. This design also allows for unilateral or bilateral implantation. However, the authors are unaware of any reports to date on the changes in joint loading or instrumentation stresses that are associated with the choice of C2 anchor or unilateral/bilateral use. **METHODS:** A ligamentous, nonlinear, **sliding** contact, three-dimensional finite element model of the C0-C1-C2 complex and a novel instrumentation system was developed. Validation of the model has been previously reported. Finite element models representing combinations of cervical anchor type (C1-C2 transarticular screws vs. C2 pedicle screws) and unilateral versus bilateral instrumentation were evaluated. All models were subjected to compression with pure moments in either flexion, extension, or lateral bending. Kinematic reductions with respect to the intact (uninjured and without instrumentation) case caused by instrumentation use were reported. Changes in loading profiles through the

right and left C0-C1 and C1-C2 facets, transverse ligament-dens, and dens-anterior ring of C1 articulations were calculated by the finite element model. Maximum von Mises stresses within the instrumentation were predicted for each model variant and loading scenario. RESULTS: Bilateral instrumentation provided greater motion reductions than the unilateral instrumentation. When used bilaterally, C2 pedicle screws approximate the kinematic reductions and instrumentation stresses (except in lateral bending) that are seen with C1-C2 transarticular screws. The finite element model predicted that the maximum stress was always in the region in which the plate transformed into the rod. CONCLUSIONS: To the best of the authors' knowledge, this is the first report of predicting changes in loading in the upper cervical spine caused by instrumentation. The most significant conclusion that can be drawn from the finite element model predictions is that C2 pedicle screw fixation provides the same relative **stability** and instrumentation stresses as C1-C2 transarticular screw use. C2 pedicle screws can be a good alternative to C2-C1 transarticular screws when bilateral instrumentation is applied.

Record Date Created: 20011114

Record Date Completed: 20020122

File 73:EMBASE 1974-2006/Feb 15  
(c) 2006 Elsevier Science B.V.  
File 5:Biosis Previews(R) 1969-2006/Feb W1  
(c) 2006 BIOSIS  
File 94:JICST-EPlus 1985-2006/Nov W4  
(c)2006 Japan Science and Tech Corp(JST)  
File 144:Pascal 1973-2006/Jan W4  
(c) 2006 INIST/CNRS  
File 431:MediConf: Medical Con. & Events 1998-2004/Oct B2  
(c) 2004 Dr. R. Steck  
File 8:Ei Compendex(R) 1970-2006/Feb W1  
(c) 2006 Elsevier Eng. Info. Inc.  
File 6:NTIS 1964-2006/Feb W1  
(c) 2006 NTIS, Intl Cpyrght All Rights Res

Set	Items	Description
S1	118077	VERTEBRA? ?
S2	159014	SLIDE? ? OR SLIDING OR SLIDEAB? OR SLIDAB?
S3	666488	ROD OR RODS
S4	14	S1 AND S2 AND S3
S5	10	RD (unique items)
S6	10	Sort, S5/ALL/PY,A

6/7/2 (Item 2 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0007458074 BIOSIS NO.: 199140100965

**POSTERIOR SEGMENTAL SPINAL INSTRUMENTATION OF SCOLIOSIS WITH SLIDING  
VERTEBRAL RODS A PRELIMINARY REPORT OF 18 CASES WITH ARTHRODESIS**

AUTHOR: BADELON O (Reprint); BENSACHEL H

AUTHOR ADDRESS: PARIS, FRANCE\*\*FRANCE

JOURNAL: Orthopaedic Transactions 14 (3): p800 1990

CONFERENCE/MEETING: COMBINED MEETINGS OF THE SCOLIOSIS RESEARCH SOCIETY AND  
EUROPEAN SPINAL DEFORMITIES SOCIETY, AMSTERDAM, NETHERLANDS, SEPTEMBER  
17-22, 1990. ORTHOP TRANS.

ISSN: 0162-9379

DOCUMENT TYPE: Meeting

RECORD TYPE: Citation

LANGUAGE: ENGLISH

6/7/5 (Item 5 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0013242307 BIOSIS NO.: 200100414146

**Jack for pulling a vertebral anchor**

AUTHOR: Barker B Thomas (Reprint); Zdeblick Thomas

AUTHOR ADDRESS: Bartlett, TN, USA\*\*USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1247 (4): June 26, 2001 2001

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A device for pulling a vertebral anchor with a strain gauge in  
combination with a tension rod. The device has a cylindrical telescopic

housing made of a first hollow cylinder received inside a second hollow cylinder such that the two hollow cylinders define a longitudinal passage from the proximal to the distal end of the cylindrical telescopic housing. The tension **rod** is **slidably** disposed within the longitudinal passageway and has a means mounted on or near its distal end to attach to a **vertebral** anchor (or bone screw). The first and second hollow cylinders are biased apart by a mechanical spring, which resides inside the second hollow cylinder. A means for moving said tension **rod** in a proximal direction with respect to said telescopic housing is then operatively attached to the housing, as well as, a strain gauge to directly measure the amount of tension placed on the tension **rod** when the device is in use.

6/7/7 (Item 7 from file: 5)

DIALOG(R) File 5: Biosis Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0014055874 BIOSIS NO.: 200300014593

**Spinal rod transverse connectors**

AUTHOR: Gertzbein Stanley (Reprint); Sherman Michael C

JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1263 (5): Oct. 29, 2002 2002

MEDIUM: e-file

ISSN: 0098-1133 (ISSN print)

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A transverse fixator assembly for spanning between a number of longitudinal members situated adjacent a patient's **vertebrae** and methods for fixation of the spine which allow variation of the distance between two or more **vertebrae**. The assembly includes a number of **connectors** configured to span the distance between and engage the longitudinal members. The **connectors** define a thru-hole for engaging a bone bolt which is engaged to a **vertebra** plus a number of spikes projecting from the **connector**. A locking mechanism is configured to prevent the bolt from rotating relative to the **connector** when the nut is being tightened. One or more of the **connectors** may be a dynamic connector which is **slidably** engaged to the longitudinal members to vary the distance between the **vertebrae** for compression or distraction.

6/7/8 (Item 8 from file: 5)

DIALOG(R) File 5: Biosis Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0013752880 BIOSIS NO.: 200200346391

**Implant for osteosynthesis device with hook**

AUTHOR: Alby Albert (Reprint)

AUTHOR ADDRESS: Ch-Essertines, Switzerland\*\*Switzerland

JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1258 (2): May 14, 2002 2002

MEDIUM: e-file

ISSN: 0098-1133

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A spinal implant device arranged to clamp at least one **vertebra**



includes a link **rod**, a hook defining a central bore and secured to a fixing head, a counterhook, an elongate member, a position control device and an interconnection arrangement between the counterhook and the hook. The fixing head has a pair of upwardly extending members forming a channel configured to accommodate the link **rod**. A nut engages the fixing head to exert a downward force onto the link **rod**. The elongate member attaches at one end to the counterhook and **slidably** engages the central bore of the hook such that the hook and the counterhook cooperate to define a clamp. The position control device cooperates with the hook and the elongate member to selectively maintain the hook in a position relative to the counterhook.

6/7/9 (Item 9 from file: 5)

DIALOG(R)File 5:BIOSIS Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0014289711 BIOSIS NO.: 200300248430

**Mobile dynamic system for treating spinal disorder**

AUTHOR: Rivard Charles-Hilaire (Reprint); Dujovne Ariel

AUTHOR ADDRESS: St. Lambert, Canada\*\*Canada

JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1269 (5): Apr. 29, 2003 2003

MEDIUM: e-file

ISSN: 0098-1133 (ISSN print)

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: A mobile dynamic implantable spinal apparatus comprising at least one fixed bracket secured on a correcting **rod** and at least one mobile carrier **slidably** mounted on the correcting **rod**. The fixed bracket and the mobile carrier each include a body and a pedicle screw or a transverse process hook articulated to the body. The distribution of the degrees of freedom between the carrier and the **rod**, and the pedicle screws or hooks and the carrier and the fixed bracket provide a non-rigid assembly which preserves some of the natural mobility of the **vertebrae** and disk, and the potential growth of the spinal column.

6/7/10 (Item 10 from file: 5)

DIALOG(R)File 5:BIOSIS Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0014203030 BIOSIS NO.: 200300161749

**Orthopaedic rod /plate locking mechanism**

AUTHOR: Selvitelli David M (Reprint); Reynolds Martin A; Doherty Thomas V

AUTHOR ADDRESS: Wellesley, MA, USA\*\*USA

JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1267 (4): Feb. 25, 2003 2003

MEDIUM: e-file

ISSN: 0098-1133 (ISSN print)

DOCUMENT TYPE: Patent

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: An orthopaedic junction or anchor assembly for anchoring a linkage such as a **rod** or cable used for fixation or reduction. The assembly includes a slotted bolt that fits through an apertured plate, and a support platform that fits over the bolt, capturing the plate in a

one-piece assembly for convenient installation. The base of the bolt is recessed in the plate and a cap or nut tightens down to secure the linking member, e.g., a rod or cable, in the bolt slot, simultaneously clamping the bolt to fix both its position and its orientation on the plate. The support platform has the form of a generally annular washer with an upper surface including a transverse groove on which the rod seats, and a lower surface abutting the plate. A sleeve portion may extend within and buttress the surrounding wall of the plate. The plate may take various forms, such as a hook or offset arm, an occipital T-plate, or a vertebra plate. In one embodiment the support platform is swaged to the bolt, allowing the bolt to rotate freely, and slide along the slot of the bone plate as a captive assembly, keeping all the components together without constraining the alignment during installation. Other embodiments employ mating ridge and groove, or other detents circumferentially on the bolt shaft and the inner face of the support, to snap and retain the pieces together. When the rod or other linkage has been positioned, a lock nut or cap then fastens onto the bolt to seat the rod against the support platform and lock both the position of the bolt and the angular orientation of its slot. Tightening the nut or cap pushes the rod downward to seat on the support plate and pulls the bolt upward to press the base of the bolt against the bottom of the plate. The bottom surfaces of the support washer as well as the plate-facing surface of the base may be roughened or textured to engage the plate, or otherwise increase resistance to rotational and lateral movement once the rod has been positioned and the nut is torqued down.

File 16:Gale Group PROMT(R) 1990-2006/Feb 14  
(c) 2006 The Gale Group  
File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group  
File 149:TGG Health&Wellness DB(SM) 1976-2006/Jan W5  
(c) 2006 The Gale Group  
File 148:Gale Group Trade & Industry DB 1976-2006/Feb 15  
(c)2006 The Gale Group  
File 135:NewsRx Weekly Reports 1995-2006/Feb W1  
(c) 2006 NewsRx  
File 129:PHIND(Archival) 1980-2006/Feb W1  
(c) 2006 T&F Informa UK Ltd  
File 441:ESPICOM Pharm&Med DEVICE NEWS 2006/Oct W4  
(c) 2006 ESPICOM Bus.Intell.  
File 9:Business & Industry(R) Jul/1994-2006/Feb 14  
(c) 2006 The Gale Group

Set	Items	Description
S1	9226	VERTEBRA? ?
S2	223159	SLIDE? ? OR SLIDING OR SLIDEAB? OR SLIDAB?
S3	120861	ROD OR RODS
S4	1	S1(S) S2(S) S3

4/3,K/1 (Item 1 from file: 441)

DIALOG(R)File 441:ESPICOM Pharm&Med DEVICE NEWS

(c) 2006 ESPICOM Bus.Intell. All rts. reserv.

00048082 00051907 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Sintea Biotech launches spinal systems and instrumentation**

Medical Industry Week

13 November 2002 (20021113)

RECORD TYPE: FULLTEXT WORD COUNT: 1249

COMPANY: Sintea Biotech

(THIS IS THE FULLTEXT)

TEXT:

...or more holes and different inter-axes, notwithstanding this represents a serious need, since the vertebral bodies have variable dimensions along the cervical rachis. The module thickness at the screw holes is typical for a posterior plate, while the rods holes are the minimum necessary to guarantee effective tightening. The sliding rods can be modelled in order to conform to, and/or correct, the spine curvature, with compression and/or spreading actions among the single modules impressed. The empty space among the rods can be filled up with some bone grafts for a more effective osteosynthesis.

The Cervical...

## FOREIGN AND INTERNATIONAL PATENTS

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200610

(c) 2006 Thomson Derwent

File 347:JAPIO Nov 1976-2005/Oct(Updated 060203)

(c) 2006 JPO & JAPIO

Set	Items	Description
S1	8109	VERTEBRA? ?
S2	719620	SLIDE? ? OR SLIDING OR SLIDEAB? OR SLIDAB?
S3	574429	ROD OR RODS
S4	94	S1 AND S2 AND S3
S5	43	S2(S) S3(S) S1
S6	43	IDPAT S5 (sorted in duplicate/non-duplicate order)
S7	42	IDPAT S5 (primary/non-duplicate records only)

7/3,K/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

017559908 \*\*Image available\*\*

WPI Acc No: 2006-071160/200608

Related WPI Acc No: 2006-071161

XRPX Acc No: N06-061580

Scoliosis correcting device for vertebral column of child, has one sub-assembly with two rods connected to column by coupling units at ends of cord of arc defined by scoliosis curve and sliding via orifices placed at ends of U-shaped part

Patent Assignee: FORTIN F (FORT-I)

Inventor: FORTIN F; ROBIN J; SALES D G J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2872020	A1	20051230	FR 20047138	A	20040629	200608 B

Priority Applications (No Type Date): FR 20047138 A 20040629

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2872020	A1		16	A61B-017/70	

Abstract (Basic):

... The device has a sub-assembly (3) with two rods connected to the vertebral column by coupling units (33, 34) at the ends of a cord of arc defined by the curve of scoliosis. The rods slide freely through orifices situated at the ends of a U-shaped part (4) allowing optimal guiding of the rods. The part (4) has a rod with identical grooves to receive set screws for connection between sub-assemblies (2, 3) through...

... of the child increases the cord of arc defined by the scoliosis curve, as the rods are fixed on the vertebrae and slide freely in the U-shaped part, to effect straightening which tends to transform the curve...

...the time of its installation. The design of the device enables easy installation in the vertebral column of the child with reduced encumbrance...

7/3,K/2 (Item 2 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

017437659      **\*\*Image available\*\***

WPI Acc No: 2005-761338/200578

XRPX Acc No: N05-628323

**Rachidian osteosynthesis device for rachidian arthrodesis, has pedicle screw and push rod joining unit with main sleeve in which traversing bore, having transversal section, is formed along axis, where rod is mounted slidably in bore**

Patent Assignee: RAZIAN H (RAZI-I)

Inventor: RAZIAN H

Number of Countries: 001    Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2870108	A1	20051118	FR 20045320	A	20040517	200578 B

Priority Applications (No Type Date): FR 20045320 A 20040517

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2870108	A1	17	A61B-017/70		

Abstract (Basic):

...      The device permits the push rod to be maintained perfectly and prevented from **sliding** in translation in the sleeves, so that constant distances are defined between the **vertebrae**, thus obtaining effective osteosynthesis. The device is simple and hence easily implanted in the human...

**7/3,K/3      (Item 3 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

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017389641      **\*\*Image available\*\***

WPI Acc No: 2005-713296/200573

XRPX Acc No: N05-585880

**Internal pedicle insulator apparatus for use in surgical instrument, has outer insertion rod which receives pressure to slide internal pedicle insulator implant along inner insertion rod toward vertebral body**

Patent Assignee: CHAPPUIS J L (CHAP-I)

Inventor: CHAPPUIS J L

Number of Countries: 001    Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20050240194	A1	20051027	US 2004563797	P	20040420	200573 B
			US 2005110005	A	20050420	

Priority Applications (No Type Date): US 2004563797 P 20040420; US

2005110005 A 20050420

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20050240194	A1	6	A61B-017/58		Provisional application US 2004563797

Abstract (Basic):

...      The apparatus has an inner insertion rod (12) that is arranged to be **slidably** engaged inside an outer insertion rod. A pressure is applied to the outer insertion rod to **slide** an internal pedicle insulator implant along the inner insertion rod toward **vertebral** body until the implant is positioned within the body. A pedicle screw is returned to...

...      The pressure is applied to the outer insertion rod to **slide** the internal pedicle insulator implant along the inner insertion rod toward **vertebral** body until the implant is positioned within the

body, thus preventing repositioning of the screw...

7/3,K/7 (Item 7 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
016349135 \*\*Image available\*\*  
WPI Acc No: 2004-507266/200448  
XRPX Acc No: N04-400877

Intervertebral implant used as an artificial vertebral disc has a middle part having a ventral side surface, a dorsal side surface, lateral side surfaces, a lower surface and an upper surface arranged between upper and lower parts

Patent Assignee: MATHYS MEDIZINALTECHNIK AG (MATH-N); SYNTHES GMBH (SYNT-N)  
Inventor: FRIGG R; LECHMANN B  
Number of Countries: 098 Number of Patents: 006  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200454479	A1	20040701	WO 2002CH708	A	20021217	200448 B
AU 2002347120	A1	20040709	AU 2002347120	A	20021217	200474
			WO 2002CH708	A	20021217	
EP 1572039	A1	20050914	EP 2002782619	A	20021217	200560
			WO 2002CH708	A	20021217	
BR 200215957	A	20050913	BR 200215957	A	20021217	200561
			WO 2002CH708	A	20021217	
US 20060009850	A1	20060112	WO 2002CH708	A	20021217	200605
			US 2005539658	A	20050711	
NZ 540230	A	20051223	NZ 540230	A	20021217	200605
			WO 2002CH708	A	20021217	

Priority Applications (No Type Date): WO 2002CH708 A 20021217

Patent Details:

Patent No	Kind	Lang	Pg	Main IPC	Filing Notes
WO 200454479	A1	G	41	A61F-002/44	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2002347120 A1 A61F-002/44 Based on patent WO 200454479

EP 1572039 A1 G A61F-002/44 Based on patent WO 200454479

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

BR 200215957 A A61F-002/44 Based on patent WO 200454479

US 20060009850 A1 A61F-002/44

NZ 540230 A A61F-002/44 Based on patent WO 200454479

Abstract (Basic):

... An INDEPENDENT CLAIM is also included for a process for replacing a defective natural vertebral disc using the intervertebral implant. Preferred Features: The lower surface of the first part and the upper surface of the middle part are formed as sliding surface for the first cylindrical rod. The two sliding surface for the first rod are formed as planar, cylindrical or conical surfaces...

**7/3,K/8 (Item 8 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

016312448 \*\*Image available\*\*

WPI Acc No: 2004-470343/200445

XRPX Acc No: N04-371701

**Spinal fixation device for correcting curvature of spine includes slidable connection for connecting an anchoring screw to a solidifying rod, with slidable connection including a point designed to penetrate a vertebral bone**

Patent Assignee: VITATECH (VITA-N); VITATECH SA (VITA-N)

Inventor: GRADEL T; LEMAIRE J; LEMAIRE J P

Number of Countries: 030 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2848408	A1	20040618	FR 200216235	A	20021217	200445 B
WO 200464654	A1	20040805	WO 2003FR3735	A	20031216	200451
EP 1578289	A1	20050928	EP 2003815409	A	20031216	200563
			WO 2003FR3735	A	20031216	

Priority Applications (No Type Date): FR 200216235 A 20021217

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

FR 2848408 A1 19 A61B-017/70

WO 200464654 A1 F A61B-017/70

Designated States (National): JP KR US

Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR

HU IE IT LU MC NL PT RO SE SI SK TR

EP 1578289 A1 F A61B-017/70 Based on patent WO 200464654

Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR

HU IE IT LI LU MC NL PT RO SE SI SK TR

Abstract (Basic):

... The spinal fixation device includes a **slidable connection** (4) for interconnecting an anchoring screw (1) and a solidifying rod (3). The **sliding connection** includes a hole (16) for passage of the anchoring screw, and a reception device (18) for receiving a section of the rod, oriented along a transverse axis and for receiving a tightening device (21,22) for tightening the rod in the reception device. The **sliding connection** also includes a point (9) designed for penetrating a **vertebral bone** to retain the **sliding connection** on the bone.

**7/3,K/9 (Item 9 from file: 350)**

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

016081052 \*\*Image available\*\*

WPI Acc No: 2004-238913/200422

XRAM Acc No: C04-093509

XRPX Acc No: N04-189398

**Spinal rod sleeve system for treating spinal disorder, e.g. long, progressive longitudinal growth in young patients, comprises longitudinal spinal rod disposed within concentric sleeve having internal bearing layer and external layer**

Patent Assignee: MCAFEE P C (MCAF-I)

Inventor: MCAFEE P C

Number of Countries: 105 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200417817	A2	20040304	WO 2003US26333	A	20030821	200422 B
US 20040143264	A1	20040722	US 2002405775	P	20020823	200449
			US 2003645202	A	20030821	
AU 2003265597	A1	20040311	AU 2003265597	A	20030821	200457

Priority Applications (No Type Date): US 2002405775 P 20020823; US 2003645202 A 20030821

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200417817	A2	E	25	A61B-000/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

US 20040143264	A1		A61B-017/70	Provisional application US 2002405775
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AU 2003265597	A1		A61B-000/00	Based on patent WO 200417817
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Abstract (Basic):

... The invented spinal rod sleeve system helps preserve range of motion following spinal surgery. It also allows a vertebra to slide cephalad or caudad along a spinal rod sleeve system...

7/3,K/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

015332764 \*\*Image available\*\*

WPI Acc No: 2003-393700/200337

XRPX Acc No: N03-314556

**Vertebral column support has bone anchor screw with stop shoulder for sliding wedge clamp to retain fixing rod**

Patent Assignee: VITATECH (VITA-N); VITATECH SA (VITA-N); COTTIN P (COTT-I); GRADEL T (GRAD-I); JABY Y (JABY-I); LEMAIRE J (LEMA-I)

Inventor: COTTIN P; GRADEL T; JABY Y; LEMAIRE J; LEMAIRE J P

Number of Countries: 027 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200337198	A1	20030508	WO 2002FR3623	A	20021023	200337 B
FR 2831420	A1	20030502	FR 200114289	A	20011030	200340
EP 1439790	A1	20040728	EP 2002796821	A	20021023	200449
			WO 2002FR3623	A	20021023	
US 20050010216	A1	20050113	WO 2002FR3623	A	20021023	200506
			US 2004494355	A	20040427	
JP 2005507281	W	20050317	WO 2002FR3623	A	20021023	200520
			JP 2003539546	A	20021023	
EP 1439790	B1	20051123	EP 2002796821	A	20021023	200577
			WO 2002FR3623	A	20021023	
DE 60207597	E	20051229	DE 207597	A	20021023	200603
			EP 2002796821	A	20021023	
			WO 2002FR3623	A	20021023	

Priority Applications (No Type Date): FR 200114289 A 20011030

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200337198 A1 F 12 A61B-017/70  
Designated States (National): JP KR US  
Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
IE IT LU MC NL PT SE SK TR  
FR 2831420 A1 A61B-017/70  
EP 1439790 A1 F A61B-017/70 Based on patent WO 200337198  
Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
IE IT LI LU MC NL PT SE SK TR  
US 20050010216 A1 A61B-017/56  
JP 2005507281 W 33 A61B-017/58 Based on patent WO 200337198  
EP 1439790 B1 F A61B-017/70 Based on patent WO 200337198  
Designated States (Regional): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
IE IT LI LU MC NL PT SE SK TR  
DE 60207597 E A61B-017/70 Based on patent EP 1439790  
Abstract (Basic):

... The vertebral column support has a bone screw (1) with a threaded shank and a stop shoulder (7) on a cylindrical section (5). The stop shoulder engages a sliding clamp (4) which has a groove to receiving a fixing rod (3). The rod is retained by a wedge clamp (22) tensioned by a screw (21).

7/3,K/12 (Item 12 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
014448722 \*\*Image available\*\*  
WPI Acc No: 2002-269425/200231  
XRPX Acc No: N02-209644

Mobile dynamic system for treating spinal disorder uses pair of implantable rods with fixed brackets and mobile carriers

Patent Assignee: HOPITAL SAINT-JUSTINE (HOPI-N)

Inventor: DUJOVNE A; RIVARD C

Number of Countries: 098 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200217803	A2	20020307	WO 2001CA1250	A	20010830	200231 B
AU 200187455	A	20020313	AU 200187455	A	20010830	200249
US 6554831	B1	20030429	US 2000653328	A	20000901	200331
EP 1313403	A2	20030528	EP 2001966911	A	20010830	200336
			WO 2001CA1250	A	20010830	
JP 2004507313	A	20040311	WO 2001CA1250	A	20010830	200419
			JP 2002522781	A	20010830	

Priority Applications (No Type Date): US 2000653328 A 20000901

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200217803 A2 E 27 A61B-017/70

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200187455 A A61B-017/70 Based on patent WO 200217803

US 6554831 B1 A61B-017/56

EP 1313403 A2 E A61B-017/70 Based on patent WO 200217803

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR  
JP 2004507313 W 43 A61B-017/56 Based on patent WO 200217803

Abstract (Basic):

... The system comprises a pair of spinal implantable rods (12,14). Each rod may be curved to approximate a desirable three dimensional curve of the portion of the spinal column. One of the rods is used as a correcting rod to translate and maintain the vertebrae in a correct alignment while the other rod acts as a stabilizer. The rod extend through central fixed brackets (16a,16b) and mobile carriers (18a,18b). The carriers can slide on the rods.

7/3,K/13 (Item 13 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
013981228 \*\*Image available\*\*  
WPI Acc No: 2001-465442/200150  
XRPX Acc No: N01-345247

Intervertebral connecting system has connecting bars between anchoring elements equipped with slidable fixings for lengthwise rods  
Patent Assignee: BONE & JOINT RES SA (BONE-N); SCIENT'X (SCIE-N); SCIENT'X SARL (SCIE-N); MUNTING E (MUNT-I)  
Inventor: MUNTING E  
Number of Countries: 095 Number of Patents: 008  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200154597	A1	20010802	WO 2001FR259	A	20010126	200150 B
FR 2804314	A1	20010803	FR 20001071	A	20000127	200150
AU 200131921	A	20010807	AU 200131921	A	20010126	200174
EP 1250101	A1	20021023	EP 2001903979	A	20010126	200277
			WO 2001FR259	A	20010126	
JP 2003521302	W	20030715	JP 2001555577	A	20010126	200347
			WO 2001FR259	A	20010126	
US 20030144665	A1	20030731	WO 2001FR259	A	20010126	200354
			US 2002182349	A	20021105	
US 6916319	B2	20050712	WO 2001FR259	A	20010126	200546
			US 2002182349	A	20021105	
EP 1250101	B1	20051221	EP 2001903979	A	20010126	200604
			WO 2001FR259	A	20010126	

Priority Applications (No Type Date): FR 20001071 A 20000127

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
WO 200154597 A1 F 25 A61B-017/70

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

FR 2804314 A1 A61B-017/70

AU 200131921 A A61B-017/70 Based on patent WO 200154597

EP 1250101 A1 F A61B-017/70 Based on patent WO 200154597

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

JP 2003521302 W 24 A61B-017/58 Based on patent WO 200154597

US 20030144665 A1 A61B-017/56

US 6916319 B2 A61B-017/56 Based on patent WO 200154597  
EP 1250101 B1 F A61B-017/70 Based on patent WO 200154597  
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE TR

Abstract (Basic):

... The connecting system consists of vertebral anchors (3) joined by curved connecting bars (6) with slidable fixings (14) for lengthwise rods (15). The connecting bars are joined to the anchors by fixings (7) which allow them to be rotated about their axes and locked in the required position. Both bars and rods are locked in place by clamping collars (8, 23) with threaded couplings and nuts...

7/3,K/15 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

013440672 \*\*Image available\*\*

WPI Acc No: 2000-612615/200059

XRPX Acc No: N00-453759

Device to stabilise vertebrae ; has clamp with legs sliding on stabilising rod with bores having inserts for screws to fit in neighbouring vertebrae at variable angle, to clamp rod to vertebrae

Patent Assignee: SIGNUS MEDIZINTECHNIK GMBH (SIGN-N)

Inventor: KRETSCHMER P; SIEDLER U

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19914232	A1	20001005	DE 1014232	A	19990329	200059 B
US 6299614	B1	20011009	US 2000538387	A	20000329	200162

Priority Applications (No Type Date): DE 1014232 A 19990329

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

DE 19914232 A1 6 A61B-017/70

US 6299614 B1 A61B-017/68

Abstract (Basic):

... The device has screws (1) to fit in neighbouring vertebrae and a stabilising rod (9) connecting the screws. A clamp (7) has two legs (5,6) that slide along the rod and is clamped to it between each screw. The threaded part (3) of each screw...

7/3,K/16 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013155395 \*\*Image available\*\*

WPI Acc No: 2000-327267/200028

XRPX Acc No: N00-246247

Device for correction of vertebral column deformation

Patent Assignee: TATARSTAN RESTORATIVE TRAUMATOLOGY (TATA-R)

Inventor: AKHTYAMOV I F; GAFAROV KH Z; IBRAGIMOV YA KH

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2132169	C1	19990627	RU 98100496	A	19980106	200028 B

Priority Applications (No Type Date): RU 98100496 A 19980106

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

RU 2132169 C1 A61B-017/70

Abstract (Basic):

... are positioned on external side of clamps for movement in mutually perpendicular directions. Threaded tie- rods are secured to clamps on the other side through end supports. Threaded tie- rods carry bearing plates hinge-connected to each other. Bearing plates are capable of moving along threaded tie- rods , and they can be fixed. Supporting arc end is hinge-connected to one bearing plate. Second end of supporting arc is hinged to second bearing plate through slide . It is capable of moving longitudinally and may be fixed, is required. Puller is mounted....  
...supports for movement and fixation. Device facilitates recovery of functional biomechanics and normal form of vertebral column.

7/3,K/17 (Item 17 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

012938055 \*\*Image available\*\*

WPI Acc No: 2000-109902/200010

XRPX Acc No: N00-084428

**Spine fixing tool used for e.g. fixing deformed vertebra of spine**

Patent Assignee: SUGA N (SUGA-I); KAN N (KANN-I)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11347047	A	19991221	JP 98179734	A	19980610	200010 B
JP 3593262	B2	20041124	JP 98179734	A	19980610	200477

Priority Applications (No Type Date): JP 98179734 A 19980610

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 11347047 A 8 A61B-017/58

JP 3593262 B2 10 A61B-017/58 Previous Publ. patent JP 11347047

Abstract (Basic):

... screws (2,3) of the screw attachment arms (4,5) are attached individually to the vertebra . The arms are attached in a rod (6). The fixing screw (4a) allows the screw attachment arms to slide along the predetermined range of the rod when the waist is bent and turned.  
... Allows easy movement of vertebra when bending and turning the waist since pressure applied to vertebra is reduced. Prevents breakage of spine fixing tool by allowing screw attachment arms to slide along rods.

7/3,K/23 (Item 23 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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009998010 \*\*Image available\*\*

WPI Acc No: 1994-265721/199433

XRPX Acc No: N94-209145

**Osteosynthesis fixing system for lumbar/sacral vertebrae - comprises two-section rods with fixing screws and guides for upper ends**

Patent Assignee: SOFAMOR SOC FAB MATERIEL ORTHOPEDIQUE (SOFA-N); SOPRANE SA (SOPR-N); FOURNET-FAYARD J (FOUR-I); GALLAND O (GALL-I); GARIN C (GARI-I); LUCET A (LUCE-I)

Inventor: FOURNET-FAYARD J; GALLAND O; GARIN C; LUCET A

Number of Countries: 009 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 612507	A1	19940831	EP 94420067	A	19940222	199433 B
FR 2701833	A1	19940902	FR 932357	A	19930224	199435
			FR 932357	A	19930224	
FR 2702361	A1	19940916	FR 932357	A	19930224	199437
			FR 94563	A	19940114	
FR 2702362	A1	19940916	FR 941661	A	19940209	199437
US 5486174	A	19960123	US 94200409	A	19940223	199610
EP 612507	B1	19981209	EP 94420067	A	19940222	199902
DE 69415054	E	19990121	DE 615054	A	19940222	199909
			EP 94420067	A	19940222	
ES 2126090	T3	19990316	EP 94420067	A	19940222	199918

Priority Applications (No Type Date): FR 941661 A 19940209; FR 932357 A 19930224; FR 94563 A 19940114

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 612507	A1 F	8	A61B-017/58	
Designated States (Regional): BE CH DE ES FR GB IT LI				
FR 2701833	A1			Div ex application FR 932357
FR 2702361	A1			Div ex application FR 932357
US 5486174	A	8	A61B-017/70	
EP 612507	B1 F	8	A61B-017/58	

Designated States (Regional): BE CH DE ES FR GB IT LI

DE 69415054 E A61B-017/58 Based on patent EP 612507

ES 2126090 T3 A61B-017/58 Based on patent EP 612507

...Abstract (Basic): The fixing system consists of two parallel assemblies, each with a **coupling rod** (4) which has a first section (4a) to cooperate with locking elements (7) on pedicular screws (3), and a second section (4b) of smaller diameter, able to **slide** freely in a guide (5) and reduce the stress on the disc of the **vertebra** immediately above the last fixed one...

...Abstract (Equivalent): A fastener for implanting to spaced **vertebrate** for relieving stress on a **vertebral** disc of a **vertebral** stage of patient's spinal column which is adjacent at least two **vertebral** stages which are mechanically united to one another and wherein each of the **vertebral** stages includes a **vertebra** having pedicles, the fastener comprising, a fastener **rod** having first and second portions, said second portion having a diameter which is less than...

...means having a portion which is adapted to be anchorable into adjacent pedicles of the **vertebrae** of the at least two **vertebral** stages, each of said pedicle screw means including tightening means for securing said first portion of said **rod** to said at least two pedicle screw means so as to be in fixed relationship to the at least two **vertebral** stages when said fastener is in use, a guidance means having a screw portion which is adapted to be anchored into a pedicle of the **vertebra** of the next adjacent **vertebral** stage and a head portion, said head portion having an open passageway, said second portion of said fastener **rod** being continuously **slidably** engaged within said open passageway when said fastener is implanted in the **vertebrae** and said first portion of said **rod** is secured to said at least two pedicle screw means which are fixed to the at least two **vertebral** stages and said guidance means is secured to the next adjacent **vertebral** stage, whereby said fastener relieves stress on the disc

adjacent the at least two vertebral stages when in use...

7/3,K/24 (Item 24 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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009981113 \*\*Image available\*\*

WPI Acc No: 1994-248827/199430

XRPX Acc No: N94-196604

**Spinal implant fixation system - includes rod with channel having opening to permit top-loading of rod connector, and has threaded bore**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N); DANEK MEDICAL INC (DANE-N)

Inventor: ANDERSON M N; BRUMFIELD D L; LUQUE E R

Number of Countries: 051 Number of Patents: 021

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9415554	A1	19940721	WO 94US108	A	19940104	199430 B
AU 9460826	A	19940815	AU 9460826	A	19940104	199442
ZA 9400021	A	19941130	ZA 9421	A	19940104	199502
EP 683653	A1	19951129	EP 94907143	A	19940104	199601
			WO 94US108	A	19940104	
BR 9405744	A	19951205	BR 945744	A	19940104	199607
			WO 94US108	A	19940104	
US 5527314	A	19960618	US 93278	A	19930104	199630
US 5534002	A	19960709	US 93278	A	19930104	199633
			US 95478901	A	19950607	
US 5562662	A	19961008	US 93278	A	19930104	199646
			US 95480871	A	19950607	
JP 8505304	W	19960611	JP 94516164	A	19940104	199648
			WO 94US108	A	19940104	
EP 683653	A4	19960807	EP 94907143	A		199701
TW 283637	A	19960821	TW 94100762	A	19940131	199702
US 5609592	A	19970311	US 93278	A	19930104	199716
			US 95481045	A	19950607	
AU 677377	B	19970424	AU 9460826	A	19940104	199725
AU 9714893	A	19970515	AU 9460826	A	19940104	199728
			AU 9714893	A	19970224	
AU 9714894	A	19970515	AU 9460826	A	19940104	199728
			AU 9714894	A	19970224	
CN 1117264	A	19960221	CN 94191060	A	19940104	199742
AU 687698	B	19980226	AU 9460826	A	19940104	199821
			AU 9714893	A	19970224	
AU 687699	B	19980226	AU 9460826	A	19940104	199821
			AU 9714894	A	19970224	
MX 187745	B	19980112	MX 94117	A	19940103	200046
EP 683653	B1	20020911	EP 94907143	A	19940104	200264
			WO 94US108	A	19940104	
DE 69431348	E	20021017	DE 631348	A	19940104	200276
			EP 94907143	A	19940104	
			WO 94US108	A	19940104	

Priority Applications (No Type Date): US 93278 A 19930104; US 95478901 A 19950607; US 95480871 A 19950607; US 95481045 A 19950607

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9415554 A1 E 53 A61F-005/00

Designated States (National): AU BB BG BR BY CA CN CZ FI HU JP KP KR KZ

LK LV MG MN MW NO NZ PL RO RU SD SK UA US UZ VN  
 Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL  
 OA PT SE

AU 9460826 A Based on patent WO 9415554  
 ZA 9400021 A 44 A61F-000/00  
 EP 683653 A1 E 1 Based on patent WO 9415554

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC  
 NL PT SE

BR 9405744 A Based on patent WO 9415554  
 US 5527314 A 18 A61B-017/70  
 US 5534002 A 17 A61B-017/70 Div ex application US 93278  
 US 5562662 A 16 A61B-017/70 Div ex application US 93278  
 JP 8505304 W 53 A61B-017/56 Based on patent WO 9415554  
 TW 283637 A A61F-002/44  
 US 5609592 A 17 A61B-017/70 Div ex application US 93278  
 Div ex patent US 5527314

AU 677377 B A61B-017/70 Previous Publ. patent AU 9460826  
 Based on patent WO 9415554

AU 9714893 A A61B-017/70 Div ex application AU 9460826  
 AU 9714894 A A61B-017/70 Div ex application AU 9460826  
 AU 687698 B A61B-017/70 Div ex application AU 9460826  
 Previous Publ. patent AU 9714893

AU 687699 B A61B-017/70 Div ex application AU 9460826  
 Previous Publ. patent AU 9714894

MX 187745 B A61B-017/056  
 EP 683653 B1 E A61F-005/00 Based on patent WO 9415554

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC  
 NL PT SE

DE 69431348 E A61F-005/00 Based on patent EP 683653  
 Based on patent WO 9415554

...Abstract (Equivalent): drawing the spinal rod and the one fixation  
 element toward each other while sliding the rod connectors along  
 the stems of tile corresponding fixation elements, to thereby draw the  
 spinal rod and instrumented vertebra toward each other; and...

7/3,K/25 (Item 25 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
 (c) 2006 Thomson Derwent. All rts. reserv.  
 009838223 \*\*Image available\*\*  
 WPI Acc No: 1994-118079/199414  
 XRPX Acc No: N94-092557

**Device for stabilising bone segments - has several fixation devices which  
 each span several vertebrae and each has threaded lateral surfaces**

Patent Assignee: HD MEDICAL INC (HDME-N)  
 Inventor: JACOBSON R E; MIRSON B J  
 Number of Countries: 019 Number of Patents: 005  
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9406361	A2	19940331	WO 93US8475	A	19930909	199414 B
US 5382248	A	19950117	US 92944206	A	19920910	199509
WO 9406361	A3	19940526	WO 93US8475	A	19930909	199516
EP 719114	A1	19960703	EP 93920504	A	19930909	199631
			WO 93US8475	A	19930909	
JP 8501237	W	19960213	WO 93US8475	A	19930909	199643
			JP 94508156	A	19930909	

Priority Applications (No Type Date): US 92944206 A 19920910

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9406361 A2 E 49 A61B-017/56

US 5382248 A 20 A61B-017/56

EP 719114 A1 E 49 A61B-017/56 Based on patent WO 9406361

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC  
NL PT SE

JP 8501237 W 43 A61B-017/56 Based on patent WO 9406361

WO 9406361 A3 A61B-017/56

...Abstract (Equivalent): The apparatus for stabilising a plurality of bone segments, such as vertebrae of a spinal column, comprises one or more fixation devices. Each fixation device comprises an elongated rod having a longitudinal slot through its upper and lower surfaces and having threaded lateral surfaces. Slotted or axially threaded blocks are slidably or rotatably movable along each rod into predetermined positions corresponding to locations selected for securing the apparatus to the bone...

7/3,K/26 (Item 26 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

009745969 \*\*Image available\*\*

WPI Acc No: 1994-025820/199403

XRPX Acc No: N94-020146

Device anchored to vertebra to treat deviation of spine - has locking elements and locking plates with anti-slip projections and threaded part holding slide on connecting rod

Patent Assignee: CHOPIN D (CHOP-I); GROSSE A (GROS-I); ROUSSOULY P (ROUS-I); TAGLANG G (TAGL-I)

Inventor: CHOPIN D; GROSSE A; ROUSSOULY P; TAGLANG G; TAGLAND G

Number of Countries: 021 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 940062	A1	19940106	WO 93FR605	A	19930618	199403 B
FR 2692471	A1	19931224	FR 927504	A	19920619	199404
AU 9343330	A	19940124	AU 9343330	A	19930618	199420
EP 645986	A1	19950405	EP 93913159	A	19930618	199518
			WO 93FR605	A	19930618	
JP 7504593	W	19950525	WO 93FR605	A	19930618	199529
			JP 94502088	A	19930618	
AU 670097	B	19960704	AU 9343330	A	19930618	199634
EP 645986	B1	19970326	EP 93913159	A	19930618	199717
			WO 93FR605	A	19930618	
DE 69309272	E	19970430	DE 609272	A	19930618	199723
			EP 93913159	A	19930618	
			WO 93FR605	A	19930618	
CA 2137374	C	19970520	CA 2137374	A	19930618	199732
ES 2102655	T3	19970801	EP 93913159	A	19930618	199737
US 5810817	A	19980922	WO 93FR605	A	19930618	199845
			US 94351251	A	19941208	
			US 97863066	A	19970523	

Priority Applications (No Type Date): FR 927504 A 19920619

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes



WO 9400062 A1 F 36 A61B-017/58  
Designated States (National): AU CA JP US  
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL  
PT SE  
AU 9343330 A A61B-017/58 Based on patent WO 9400062  
EP 645986 A1 F A61B-017/58 Based on patent WO 9400062  
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC  
NL PT SE  
JP 7504593 W 1 A61B-017/58 Based on patent WO 9400062  
AU 670097 B A61B-017/64 Previous Publ. patent AU 9343330  
Based on patent WO 9400062  
EP 645986 B1 F 24 A61B-017/70 Based on patent WO 9400062  
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC  
NL PT SE  
DE 69309272 E A61B-017/70 Based on patent EP 645986  
Based on patent WO 9400062  
CA 2137374 C F A61B-017/70  
ES 2102655 T3 A61B-017/70 Based on patent EP 645986  
US 5810817 A A61B-017/70 Cont of application WO 93FR605  
Cont of application US 94351251  
FR 2692471 A1 A61B-017/58

...Abstract (Basic): device has bone screws (1) or hooks (2) to which it is  
fixed to the **vertebra**. These have a locking plate (7) and a threaded  
cylindrical part. A bolt (8) is screwed on to this to tighten a **slide**  
(4) on to a **connecting rod** which has a circular cross section...  
...Abstract (Equivalent): Spinal therapy device comprising: **vertebral**  
anchoring elements (1,2,200,202,50,56) having an anchoring part  
(9,15,50,150,56) shaped to be anchored in or on the bone of a **vertebra**  
and extending by a screw-threaded cylindrical part (5) onto which a  
clamping nut (8) is screwed, at least one circular cross-section  
fastening **rod** (3) having a smooth outside surface, **connecting slides**  
(4) for **connecting** anchoring elements (1,2,200,202,50,56) to the  
fastening **rod** (3), the **connecting slides** (4) having a clamping part  
(17) and a **connecting** part (18), the clamping part (17) having inside  
surfaces (22) shaped to surround a section of the fastening **rod** (3)  
and being deformable for selectively clamping it to and releasing it  
from the fastening **rod** (3), the **connecting** part (18) having first  
branch (19) and a second branch (20) extending...  
...non-slip projections (27) to oppose any rotation and any lateral  
displacement of the **connecting slide** (4) relative to the anchoring  
element after clamping contact surface (26) of the second branch...

7/3,K/27 (Item 27 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

009721648 \*\*Image available\*\*

WPI Acc No: 1994-001498/199401

XRPX Acc No: N94-001162

**Shock-absorber for intra-vertebral stabilisation - is designed to  
progressively resist piston movement**

Patent Assignee: SOC PSI (PSIP-N); PSI PRODUCTIVITY SYSTEMS INC (PSIP-N);  
PSI (PSIP-N)

Inventor: NAVAS F

Number of Countries: 021 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 576379	A1	19931229	EP 93420274	A	19930624	199401 B
FR 2692952	A1	19931231	FR 928068	A	19920625	199405
AU 9341254	A	19940106	AU 9341254	A	19930615	199408
CA 2098155	A	19931226	CA 2098155	A	19930610	199411
US 5375823	A	19941227	US 9373417	A	19930609	199506
JP 7289562	A	19951107	JP 93153549	A	19930624	199602
AU 667912	B	19960418	AU 9341254	A	19930615	199623
EP 576379	B1	19960911	EP 93420274	A	19930624	199641
DE 69304624	E	19961017	DE 604624	A	19930624	199647
			EP 93420274	A	19930624	
KR 236010	B1	20000302	KR 9311678	A	19930625	200122

Priority Applications (No Type Date): FR 928068 A 19920625

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 576379 A1 F 6 A61B-017/60

Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL  
PT SE

FR 2692952 A1 F16F-001/36

AU 9341254 A A61B-017/56

CA 2098155 A F16F-009/48

US 5375823 A 6 F16F-001/36

JP 7289562 A 4 A61B-017/60

AU 667912 B A61B-017/56 Previous Publ. patent AU 9341254

EP 576379 B1 F 7 A61B-017/60

Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL  
PT SE

DE 69304624 E A61B-017/60 Based on patent EP 576379

KR 236010 B1 A61F-002/44

...Abstract (Equivalent): The intervertebral stabiliser for attachment into two vertebrae comprises a housing having opposite ends and defining an internal chamber. One of the ends of the housing being closed. A piston is slidably deposited within the internal chamber. A first rod extends outwardly relative to the chamber from one end of the housing and a second rod extends outwardly relative to the chamber from the piston...

7/3,K/28 (Item 28 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.

009628841 \*\*Image available\*\*

WPI Acc No: 1993-322390/199341

XRPX Acc No: N93-248444

Perpendicular rod connector for spinal fixation mechanism - has first fixator connected to vertebra which has bar and second which is shiftable in relation to first and connected to spinal rod

Patent Assignee: BRISTOL-MYERS SQUIBB CO (BRIM); ZIMMER INC (ZIMV)

Inventor: DIMAR J R; JOHNSON J R; LOZIER A J

Number of Countries: 008 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 565149	A2	19931013	EP 93200634	A	19930305	199341 B
AU 9332802	A	19930916	AU 9332802	A	19930204	199344
CA 2088961	A	19930911	CA 2088961	A	19930205	199348
EP 565149	A3	19940302	EP 93200634	A	19930305	199519

...Abstract (Equivalent): **Vertebral** osteosynthesis device, comprising two rigid support **rods** (3) on which there can be mounted bone anchoring elements comprising attachment members (5a, 5b) consisting of either hooks designed to be engaged around **vertebral** apophyses, or screws

designed to bear in the pedicle of the **vertebrae** each of the  
anchoring elements (5) comprising on the one hand two lateral walls...  
...parallel and flexible, defining between them a channel (11) adjusted to  
the diameter of the **rods** (3) and on the other hand a clamping element  
(12) suitable for being engaged on...  
...lateral walls (10), at the top ends thereof, is less than the diameter  
of the **rods** (3) so that the latter can be held temporarily between  
them by snapping in and...  
...legs come to bear against the lateral walls (10) whilst moving them  
closer together and **slide** on them during clamping

7/3,K/30 (Item 30 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
009014958 \*\*Image available\*\*  
WPI Acc No: 1992-142294/199218  
XRPX Acc No: N92-106454

**Surgical re-positioning of vertebrae - involves instrument with crossbar  
and tie-bar fitted with nut and gripper**  
Patent Assignee: ULRICH H (ULRI-I)  
Inventor: ULRICH H; VONSTREMPE A  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
DE 4108918 C 19920430 DE 4108918 A 19910319 199218 B  
Priority Applications (No Type Date): DE 4108918 A 19910319  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
DE 4108918 C 9  
...Abstract (Basic): USE/ADVANTAGE - Spinal surgery, **vertebrae**  
repositioning, discs etc. Tie **rod** force in **slide** axis plane enables  
**vertebra** to be moved parallel to this onto adjoining **vertebrae**.

7/3,K/31 (Item 31 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
008790191 \*\*Image available\*\*  
WPI Acc No: 1991-294206/199140  
XRPX Acc No: N91-225258

**Vertical column correction device - guide consists of bush with pins  
fitting into slide**  
Patent Assignee: GUPALOV V-K (GUPA-I)  
Inventor: GUPALOV V-K; KHRAMOV N-P; RODNYANSKI L L  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
SU 1607793 A 19901115 199140 B  
Priority Applications (No Type Date): SU 4444108 A 19880511  
...Abstract (Basic): In the **vertebral** column correction device, the guide  
is made in the form of a bush (10) with pins (11) fitting into the  
**slide** (5). The hooks (3) and stop can go round the bodies of the  
**vertebrae**. The links (2) have ring projections (12) fitting in the  
grooves of the **rod** (1).

7/3,K/36 (Item 36 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
007174910  
WPI Acc No: 1987-171919/198725  
XRPX Acc No: N87-129001

Spinal deformations and scoliosis treatment - involves two U-shaped rods  
attached to spine which form telescopic rectangular frame

Patent Assignee: ASSISTANCE PUBLIQUE (ASSI-N)

Inventor: BADELON O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2589716	A	19870515	FR 8516683	A	19851112	198725 B

Priority Applications (No Type Date): FR 8516683 A 19851112

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2589716	A		9		

...Abstract (Basic): Linkages pass around the lateral branches of the rods  
and over the projecting portions (2) of the vertebrae (1) to hold  
the vertebrae in line with the rectangular frame. The U-shaped rods  
can slide relative to one another allowing the frame to elongate  
gradually as the spine grows...

7/3,K/37 (Item 37 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2006 Thomson Derwent. All rts. reserv.  
004023697  
WPI Acc No: 1984-169239/198427  
XRPX Acc No: N84-125955

Vertebral column corrector - has guides holding slide with cylindrical  
spring linked by pusher to screw

Patent Assignee: RODNYANSKII L L (RODN-I)

Inventor: GUPALOV V K; RODNYANSKI L L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1049051	A	19831023	SU 3414342	A	19820323	198427 B

Priority Applications (No Type Date): SU 3414342 A 19820323

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SU 1049051	A		5		

...Abstract (Basic): The device for the correction of the vertebral  
column has a rigid rod (1) to which guides (2) are rigidly attached.  
Guides (2) enter apertures in the lugs (3) of slide (4). In the  
recess in slide (4) there is a cylindrical compression spring (5)  
which is pressed on by nut (6...  
...7) on which there is a pointer (8) which moves in the groove (9) of  
slide (4); while slide (4) is marked with a scale (10). One end of  
screw (11) presses on pusher...

7/3,K/38 (Item 38 from file: 350)  
DIALOG(R)File 350:Derwent WPIX

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003310849

WPI Acc No: 1982-F8857E/198220

**Device for vertebral, column dislocation taxis - has rod joined to slide and handle and thrust hinged to slide and lever**

Patent Assignee: REZNICHENKO G P (REZN-I)

Inventor: BONDAR V P; MOROZOV V A; REZNICHENKO G P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 850063	B	19810730				198220 B

Priority Applications (No Type Date): SU 2676796 A 19781020

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
SU 850063	B	3		

...Abstract (Basic): The device for **vertebral** column dislocation taxis has a hook (1) with lever, body (3), handle (4) and hook rotation mechanism with **slide** (5) having one end linked by hinge (7) to thrust (6) and the other by threaded aperture (9) to **rod** (8) which is rigidly fitted in handle (4). **Rod** (8) has a recess (10) holding bushes (12) with threaded apertures for rigid attachment by...

7/3,K/39 (Item 39 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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003069306

WPI Acc No: 1981-G9344D/198130

**Vertebrae setting appts. - has hollow body and reposition unit linked with slide fixed on threaded rod, support handles and hook**

Patent Assignee: MOROZOV V A (MORO-I)

Inventor: BONDAR V P; SUZHENKO V G

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 776608	B	19801107				198130 B

Priority Applications (No Type Date): SU 2661328 A 19780911

7/7/20 (Item 20 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2006 Thomson Derwent. All rts. reserv.  
011603517 \*\*Image available\*\*

WPI Acc No: 1998-020645/199803

**Retainer for fixing two adjacent vertebrae in desired alignment - has plates on bones sliding on rods and fixed with fasteners having sleeves screwed in bone and expanders pushing sleeves to engage bone**

Patent Assignee: ACROMED CORP (ACRO-N); ACRO MED CORP (ACRO-N)

Inventor: BENZEL E C; DINELLO A; SMITH A C; WEFERS M H; YUAN H A

Number of Countries: 017 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 809974	A2	19971203	EP 97106895	A	19970425	199803 B
AU 9719159	A	19971204	AU 9719159	A	19970430	199806
US 5713900	A	19980203	US 96656398	A	19960531	199812
JP 10057394	A	19980303	JP 97139708	A	19970529	199819

CA 2203943	A	19971130	CA 2203943	A	19970429	199824
KR 97073531	A	19971210	KR 9721484	A	19970529	199847
AU 704390	B	19990422	AU 9719159	A	19970430	199927
CA 2203943	C	19990928	CA 2203943	A	19970429	200006
JP 3022960	B2	20000321	JP 97139708	A	19970529	200019
KR 255722	B1	20000801	KR 9721484	A	19970529	200131
CN 1169849	A	19980114	CN 97112105	A	19970528	200323

Priority Applications (No Type Date): US 96656398 A 19960531

Cited Patents: No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 809974	A2	E	12	A61B-017/70	
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Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE

AU 9719159	A			A61B-017/64	
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US 5713900	A		11		
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JP 10057394	A		9	A61B-017/56	
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KR 97073531	A			A61B-017/58	
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AU 704390	B			A61B-017/64	Previous Publ. patent AU 9719159
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CA 2203943	C	E			
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JP 3022960	B2		8	A61B-017/56	Previous Publ. patent JP 10057394
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KR 255722	B1			A61B-017/58	
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CN 1169849	A			A61B-017/70	
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Abstract (Basic): EP 809974 A

The frame comprises two **vertebra** fixing plates (12,14), each of which are bored to **slide** on two parallel stiff **rods** (10), and four fasteners (20). The fasteners have outer sleeves (30) and inner expanders (32) and fit through medially angled holes (78) in the plates. The lateral side of each hole opens into the adjacent **rod** hole.

Each sleeve has a coarse outer screw form (36), a head (38) slotted to create four segments (44); and a central bore into whose head end the expander screws. The other end of the sleeve is smaller in diameter and slotted. When tightened, the head of the expander, which is countersunk, forces the sleeve head segments outwards to grip both the plate and its adjacent rod, and the other end of the expander forces the sleeve ends outwards to grip the bone.

**ADVANTAGE** - The frame's components can be secured together simultaneously in their required position on adjacent **vertebrae**, simply by tightening the four fasteners.

Dwg.1,2/11

Derwent Class: P31

International Patent Class (Main): A61B-017/56; A61B-017/58; A61B-017/64; A61B-017/70

7/7/21 (Item 21 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010205379 \*\*Image available\*\*

WPI Acc No: 1995-106633/199514

**Dynamic implanted vertebral orthosis** - comprises anchoring elements fixed to **vertebrae** and elastic coupled supporting rods which hold **vertebrae** in corrected position permitting limited mobility

Patent Assignee: FAIRANT P (FAIR-I); MARTIN J (MART-I); FAIRANT P H

(FAIR-I); MARTIN J R (MART-I)

Inventor: MARTIN J; MARTIN J R

Number of Countries: 046 Number of Patents: 011

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9505783	A1	19950302	WO 94FR886	A	19940715	199514 B
FR 2709245	A1	19950303	FR 9310291	A	19930827	199515
FR 2709246	A1	19950303	FR 941438	A	19940207	199515
FR 2709247	A1	19950303	FR 941439	A	19940207	199515
FR 2709248	A1	19950303	FR 941440	A	19940207	199515
AU 9472659	A	19950321	AU 9472659	A	19940715	199526
AU 9472660	A	19950321	AU 9472660	A	19940715	199526
AU 9472661	A	19950321	AU 9472661	A	19940715	199526
AU 9475399	A	19950321	AU 9475399	A	19940823	199526
EP 773747	A1	19970521	EP 94922924	A	19940715	199725
			WO 94FR886	A	19940715	
US 5672175	A	19970930	US 94196319	A	19940215	199745 N
			US 96595421	A	19960205	

Priority Applications (No Type Date): FR 941438 A 19940207; FR 9310291 A 19930827; FR 948794 A 19940715; US 96595421 A 19960205

Cited Patents: DE 2821678; DE 2845647; EP 140790; EP 470660; SU 485739; US 3977397; WO 8504096

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9505783	A1	F 62	A61B-017/60	
Designated States (National): AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KP KR KZ LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN				
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE				
AU 9472659	A		A61B-017/60	Based on patent WO 9505783
AU 9472660	A		A61B-017/60	Based on patent WO 9505784
AU 9472661	A		A61B-017/60	Based on patent WO 9505785
AU 9475399	A		A61B-017/60	Based on patent WO 9505786
EP 773747	A1	F 62	A61B-017/60	Based on patent WO 9505783
Designated States (Regional): AT BE CH DE DK ES FR GB IT LI NL PT SE				
US 5672175	A	22	A61B-017/56	Cont of application US 94196319
FR 2709245	A1		A61B-017/70	
FR 2709246	A1		A61B-017/70	
FR 2709247	A1		A61B-017/70	
FR 2709248	A1		A61B-017/70	

Abstract (Basic): WO 9505783 A

The orthosis consists of anchoring elements (1-3) which are fixed to the **vertebrae**, and associated supporting **rods** (4a,b; 21a,b; 22a,b; 23a,b; 24a,b). The support **rods** exercise an elastic effort to hold the **vertebrae** in a corrected position when encountering natural deformation forces.

The supporting **rods** are connected to the anchoring elements by **couplings** (5a,5b; 6a,6b) which prevent any horizontal transverse movement, but permit a relative movement in at least one other degree of liberty.

USE/ADVANTAGE - Preserves at least a part of the natural mobility of the **vertebrae** while maintaining a corrected position; suitable for treating spinal deformations resulting from congenital disorders or disease.

Dwg.1/19

Abstract (Equivalent): US 5672175 A

An implanted dynamic **vertebral** orthosis for adjusting the relative positions of spinal **vertebrae** with respect to a vertical



axis comprising anchoring members for securing to the **vertebrae** and holding means **connected** to the anchoring members, said holding means including at least one curved holding **rod** which is flexible and elastic in bending and **connected** to said anchoring members for anchoring at least two different **vertebrae**, and **coupling** means for **connecting** said holding **rod** to said anchoring members, wherein said **coupling** means comprises a first **coupling** member preventing all relative horizontal translational **sliding** movement of the **vertebrae**, while permitting relative longitudinal translational **sliding** movement along said vertical axis and relative rotational movement about said vertical axis of said holding means having elastic return means capable of exerting elastic return forces having predetermined orientation and magnitude between said anchoring members, for holding the **vertebrae** in a predetermined corrected position against natural deforming forces for reducing the overall forces exerted on the **vertebrae**.

Dwg.1/19

Derwent Class: P31

International Patent Class (Main): A61B-017/56; A61B-017/60; A61B-017/70

International Patent Class (Additional): A61B-017/02

7/TI/6 (Item 6 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Rod fixing device for vertebral column treatment, has engaging portions of bone screw mutually engaged with engagement portions of cap, enabling cap to slide within surface orthogonal to axial direction of bone screw

7/TI/11 (Item 11 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Three-dimensional locator for pedicle for cervical vertebra arch

7/TI/14 (Item 14 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Vertebral anchor pulling device used in orthopaedic and spinal surgery has moving piece which displaces tension rod to proximal direction with respect to cylindrical telescopic housing

7/TI/18 (Item 18 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Hook-type implant for vertebral osteosynthesis - has hook joined to fixing head and counter-hook adjustable relative to it by means of a rod or peg so that both hooks fit round the vertebra

7/TI/19 (Item 19 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Instrument for lateral transcutaneous stereotaxic puncturing of intervertebral discs - has carrier section fixed to upright and equipped with angle measuring mechanism

7/TI/22 (Item 22 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.

Clamp for vertebral locking rod - has outer clamp with U-shaped mount provided in both inner sides with fitting member

7/TI/32 (Item 32 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.  
**Anthropomorphic dummy frame - has flexible rod with coaxial spool  
carrying ribs**

7/TI/33 (Item 33 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.  
**Vertebral implant for osteosynthesis system - comprises anchor(s) with  
channel in head for rigid rod and main and auxiliary locking screws**

7/TI/34 (Item 34 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.  
**Implant for rigid vertebra fixing - has jaw pulled by nut into eyelet  
tapered bore to clamp specified screw**

7/TI/35 (Item 35 from file: 350)

DIALOG(R)File 350:(c) 2006 Thomson Derwent. All rts. reserv.  
**Spinal subcutaneous, compression and distraction rod - comprises  
elongated housing with connectors for clamp for connection to vertebrae**

7/TI/42 (Item 42 from file: 347)

DIALOG(R)File 347:(c) 2006 JPO & JPIO. All rts. reserv.  
**CERVICAL VERTEBRAE INSTALLING TOOL**

File 155:MEDLINE(R) 1951-2006/Feb 13

(c) format only 2006 Dialog

File 5:Biosis Previews(R) 1969-2006/Feb W1

(c) 2006 BIOSIS

File 73:EMBASE 1974-2006/Feb 15

(c) 2006 Elsevier Science B.V.

Set Items Description

S1 11 AU=(SIMONSON P? OR SIMONSON, P?)

S2 6 RD (unique items)

2/7/3 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2006 BIOSIS. All rts. reserv.

0013474498 BIOSIS NO.: 200200068009

**Spinal implant connection assembly**

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